

REMARKS

This paper is responsive to the Final Office Action mailed December 26, 2008. Upon entry of the present Amendment, claims 1, 6, and 11 will have been amended, claim 13 will have been added, and claims 2 and 7 will have been cancelled without prejudice or disclaimer, and while reserving the right to pursue these claims in one or more divisional or continuation applications.. Applicants note that the subject matter of claims 2 and 7 have been incorporated into claims 1 and 6, respectively, and thus, no new matter has been added. Thus, upon entry of this Amendment, claims 1, 3 - 6, and 8 - 13 are under consideration by the Examiner, of which claims 1, 6, and 13 are independent.

Priority

The Examiner states that Applicant's claim for priority "based upon an application filed in Japan on 04/18/2004 is denied. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter" (Office Action, pg. 2).

Applicants respectfully disagree with the Examiner's assertion.

Further to discussion in the Response filed September 10, 2008, Applicants note that the present application is a U.S. National Stage application of International Application No. PCT/JP05/07413, which was filed April 18, 2005. This PCT application is based upon Japanese application JP 2004-125713, which was filed April 21, 2004. As the PCT application and the U.S. National Stage application were each filed within the required time periods, Applicants submit that the present, U.S. National Stage Application is entitled to the priority date of the Japanese application.

Moreover, Applicants note that that Patent Application Information Retrieval (PAIR) System reflects that as of July 22, 2008, a certified copy of the foreign priority application was forwarded by the WIPO office. The Examiner is thus respectfully requested to confirm receipt of the certified priority document and acknowledgement of the claim of priority in the next official communication.

Claim Objections

The Examiner objects to claim 11 and alleges that claim 11 contradicts the limitations in claim 1. Applicants note that claim 11 has been amended to even further clarify the subject matter of the pending claims, paying particular attention to the concerns raised by the Examiner. In view of the amendment to claim 11, Applicants submit that the ground for the rejection no longer exist, and respectfully requests withdrawal of the claim objection.

Claim Rejections

The Office Action indicates that claim 2 is rejected under the same rejections in the prior action. Applicants note that upon entry of this Amendment, claim 2 is cancelled. Thus, Applicants respectfully submit that the § 112, second paragraph rejection is rendered moot and request withdrawal of this rejection.

Initially, Applicants note that independent claims 1 and 6 are amended upon entry of this Amendment. Applicants respectfully submit that the cited documents fail to disclose, singularly or in combination (in terms of claim 1):

A light emitting device, comprising:

a light emitting element having an electric signal terminal, the light emitting element being configured to emit light by an electric signal output from the electric signal terminal; and

a semiconductor chip having a light emitting element driving circuit and a temperature detecting element, the semiconductor chip being configured to drive the light emitting element, the light emitting element driving circuit transmitting the electric signal to the electric signal terminal of the light emitting element, the temperature detecting element detecting a temperature surrounding the light emitting element,

wherein the light emitting element is mounted on the semiconductor chip and is driven based on the temperature detected by the temperature detecting element, and at least part of the temperature detecting element is disposed in a light emitting element disposed region, the light emitting element disposed region being a minimum region including where the light emitting element is being mounted on the semiconductor chip.

Applicants respectfully note that the light emitting element disposed region corresponds to region 300 in Figures 4, 11A, and 11B. Applicants submit that the temperature detecting element is provided inside of the light emitting element disposed region so that the temperature of the light emitting element is detected correctly.

Applicants note that claims 2 and 7 are cancelled upon entry of this Amendment. Applicants thus respectfully submit that the rejection has been rendered moot at least with respect to claims 2 and 7. Applicants note that upon entry of the present amendment, the subject matter of prior claim 2 will have been incorporated into claim 1. Applicants also note that the subject matter of prior claim 7 will have been incorporated into claim 6. Thus, Applicants

provide the following discussion in order to address the Examiner's assertions with respect to prior claims 2 and 7 as applying to currently amended claims 1 and 6.

Otsuka in view of Olschewski

The Office Action rejects claims 1 and 10-12 under 35 U.S.C. § 103(a) as being unpatentable over Otsuka (U.S. Patent No. 3,755,679) in view of Olschewski (U.S. Patent No. 4,142,075).

The Office Action further rejects claims 2-9 under 35 U.S.C. § 103(a), for the same reasons as set forth by the Official Action dated June 11, 2008, namely, claims 2 (now cancelled), 3, 5, 6, 7, and 8 as being unpatentable over Otsuka in view of Olschewski, and claims 4 and 9 being obvious over Otsuka in view of U.S. Patent 6,344,641 to Blalock.

Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness. In establishing a *prima facie* case of obviousness, the Manual of Patent Examining Procedure (MPEP) sets forth three basic requirements. In particular, there must be 1) some motivation (or at least some "reason") to combine the cited references (MPEP 2143.01); 2) a reasonable expectation of success (MPEP 2143.02); and 3) the combination teaches each and every element of the claimed invention (MPEP 2143.03).

Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness at least because there is no reason to combine the cited references, and also because the combination fails to teach each and every element of the claimed invention. To the extent that claims 1 and 6 have been amended to incorporate the subject matter of claims 2 and 7, The Official Action dated June 11, 2008 alleges that Otsuka disclose the features of claim 2 and 7 at Fig. 2 and Col.2, lines 45-60. However, the June 11, 2008 Office Action acknowledges that

Otsuka fails to “teach specifically that the light emitting element is mounted on the semiconductor chip, and that the semiconductor chip being configured to drive the light emitting element” (Office Action, pg. 4). The June 11, 2008 Office Action thus relies on Olschewski to cure the deficiency of Otsuka. The June 11, 2008 Office Action alleges that combining Otsuka and Olschewski would be obvious “for the benefits allowed through modularization” and also “for the benefits allowed through miniaturization” (June 11, 2008 Office Action, pg. 4).

Applicants respectfully submit that a review of the Figures and related disclosure of Otsuka fails to teach or suggest *any* features which disclose that at least part of the temperature detecting element is disposed in a light emitting element disposed region, the light emitting element disposed region being a minimum region including where the light emitting element is being mounted on the semiconductor chip. Applicants respectfully submit that Otsuka at Col. 2, lines 45-60 merely discloses the existence of a PIN photodiode, generation of current of the same, and an operable temperature range. Further, Applicants respectfully submit that Figures 1 and 2 merely disclose circuit diagrams which provide little to no insight as to an actual layout or physical structure for the device in accordance with the subject matter of the pending claims, for example, as evidenced by Figures 4, 11A, and 11B.

Applicants respectfully submit that the rejections of claims 1 and 6 have been rendered moot and request withdrawal of the outstanding rejection. For at least the foregoing reasons, Applicants respectfully submit that the cited documents fail to disclose a light emitting device in accordance with the currently pending claims. Accordingly, Applicants respectfully submit that independent claims 1 and 6 are allowable over the cited documents and respectfully request withdrawal of the 35 U.S.C. § 103 rejection of the pending claims.

Applicants respectfully submit that dependent claims 3, 5, and 8 are allowable at least for the reason that they depend from an allowable base claim and because they recite additional features that further define the present invention that are neither anticipated nor obvious over the cited documents.

Regarding claims 3 and 8, Applicants note that the Official Action dated June 11, 2008 alleges that “Olschewski further teaches excluding the light emitting element disposed region (Olschewski, Fig. 6)” (Office Action, pg. 5). Applicants submit that Olschewski fails to disclose a light emitting element disposed region and the positional relation of the light emitting element driving circuit and the light emitting element disposed region in accordance with the present invention. Applicants further note that Olschewski fails to address issues, for example, that the heat generated by the light emitting element adversely affects the light emitting element driving circuit. Applicants note that the light emitting element disposed region corresponds to the region 300 in Figures 4, 11A, and 11B. Applicants further note that the specification states that the “light emitting element disposed region” is defined as “a region of minimum rectangular shape including all light emitting elements projected on the driver IC chip” (Specification as filed, pg. 21, lines 1-6). Thus, the light emitting element disposed region is a minimum rectangular region provided by connecting tangent lines of the light emitting elements

For at least the foregoing reasons, Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness documents at least because there is no specific reason to combine the documents and also because the alleged combination fails to disclose each and every element of the pending claims.

Otsuka in view of Blalock

As noted above, the Office Action rejects claims 4 and 9 under 35 U.S.C. § 103(a), as set forth by the Official Action dated June 11, 2008, as being unpatentable over Otsuka in view of Blalock (U.S. Patent No. 6,344,641).

Applicants note that claims 4 and 9 are allowable at least for the reason that they depend from an allowable base claim and because they recite additional features that further define the present invention. In particular, Applicants note that Blalock fails to disclose that at least part of the temperature detecting element is disposed in a light emitting element disposed region, the light emitting element disposed region being a minimum region including where the light emitting element is being mounted on the semiconductor chip.

For at least the foregoing reasons, Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness documents at least because there is no specific reason to combine the documents and also because the alleged combination fails to disclose each and every element of the pending claims.

Newly Submitted Claim 13 is Allowable

By the present amendment, new independent claim 13 has been presented for consideration by the Examiner. In particular, Applicants note that the applied art of record fails to anticipate or render unpatentable the combination of features recited in new claim 13, and support is available throughout the specification, for example, Figures 6 and 7. Applicants note that none of the cited documents disclose, such as, for example, a light emitting device, comprising: a light emitting element having an electric signal terminal, the light emitting element being configured to emit light by an electric signal output from the electric signal terminal; and a semiconductor chip having a light emitting element driving circuit and a temperature detecting

element, the semiconductor chip being configured to drive the light emitting element, the light emitting element driving circuit transmitting the electric signal to the electric signal terminal of the light emitting element, the temperature detecting element detecting a temperature surrounding the light emitting element, wherein the light emitting element is mounted on the semiconductor chip and is driven based on the temperature detected by the temperature detecting element, and the light emitting element driving circuit is formed in the semiconductor chip for driving the light emitting element excluding a light emitting element disposed region.

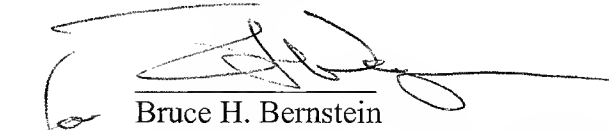
New independent claim 13 includes a light emitting element driving circuit formed on the semiconductor chip for driving the light emitting element, excluding the light emitting element disposed region. The region excluding the light emitting element disposed region corresponds to the region indicated by the line “w” in Figures 6 and 7. The light emitting element driving circuit (502) is disposed inside of the line “w”. The region defined by the line “w” is different from the light emitting element disposed region (300). Moreover, the light emitting element driving circuit is provided outside of the light emitting element disposed region so that the light emitting element driving circuit is not affected by the heat generated by the light emitting element. Applicants submit that this combination of features are lacking from the various prior art references applied by the Examiner, and thus, respectfully request the Examiner to indicate the allowability of newly submitted independent claim 13.

CONCLUSION

For at least the foregoing reasons, it is respectfully submitted that all pending claims are patentably distinct over the documents employed in the rejection of record. Applicants request reconsideration and withdrawal of the rejections of record. Allowance of the application with an early mailing date of the Notices of Allowance and Allowability is therefore respectfully requested.

If there should be any questions, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,
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